



The Closed-Loop Scoop

Washington State Department of Ecology, Solid Waste & Financial Assistance Program

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Market Makes Old Produce Into Rich Compost

What didn't sell can still be soil

Krispy Kreme has its "Hot" doughnuts sign but Bernie and Boys in Burien has its "Compost" sign.

The "Free Compost" sign lets people know the compost is cooked and ready for gardening. The compost is made from expired produce that would otherwise be thrown away, but Bernie and Boys owner Joe Salle participates in King County's food waste pilot program and now cooks his old produce into rich compost that is prized by area gardeners.

Joe was spurred to sign-up for the pilot program by his teenage daughter, a burgeoning environmentalist who put recycling bins throughout their house. Before he had the composter, Joe ground up the old produce and disposed of it through the sewer. Since the composter was installed September 30, 2003 Joe has made over 3,500 pounds of old produce into rich compost.

Bernie and Boys customers have come to relish the compost. They pull their cars or trucks up to the back of the store and load up the compost. Joe himself can attest to its quality. He uses it on his own garden and besides the occasional volunteer squash or tomato plant, the compost works great.

"Last year we got a squash plant and a tomato plant from seeds that didn't compost," said Joe. "Other than that, our garden flourishes with this compost."

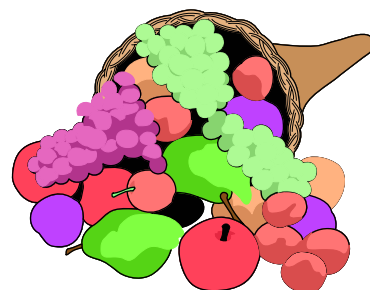
Bernie and Boys, a local market with fresh produce and a butcher counter, has become somewhat of a local nexus for sustainable living. For compost bulking agent Joe uses wood

chips he gets from the historic molding mill down the street. It's his dream that someday the vacant lot behind the store will be turned into a community garden fertilized with his compost and he's looking into getting Rainier Brewery casks to collect rainwater that can be used to flush toilets and irrigate.

Bernie and Boys is one of 14 businesses and schools helping the King County Solid Waste Division assess the feasibility of small-scale, on-site, food waste composting through this pilot program. Partially funded by a 2003 grant from the Washington State Department of Ecology, the program is testing several different composting systems, including the Earth Tub (manufactured by Green Mountain Technologies) and the BioStack (manufactured by BioSystem Solutions).

Currently, food waste accounts for 14.6 percent of King County's total waste stream. King County is also running a pilot program to collect residential food waste and plans to add a second pilot program in 2005 to collect commercial food waste.

For more information about this program, contact [Kinley Deller](#) at 206-296-4434.



Ecology Awards \$100,000 for Anaerobic Digester at WSU

Going from "rot to watt," or turning farm waste into electricity, is the goal of a Washington State University (WSU) project that has just received a \$100,000 boost from the Washington Department of Ecology (Ecology).

WSU will use the money to finish building a portable anaerobic digester that turns farm waste, manure, and household garbage into methane gas. The methane can serve as a fuel to generate electricity.

The Department of Biological Systems Engineering at WSU will develop the anaerobic digester. It will be transported around the state to demonstrate how the new technology can generate power while helping to solve solid waste disposal problems.

"This is an example of how Ecology is working with researchers and the business community to develop alternatives to current waste-handling practices," said Ecology's Mark Fuchs, who is overseeing the contract with WSU. "We want to encourage using and recovering energy from the huge amounts of biomass on farmland."

Biomass is a combination of farm-field and processing residue from harvested crops, animal waste, and municipal organic waste. Eastern Washington has an annual supply of 4.3 million tons of dry biomass that is not being used, according to a report released in 2003 that presented details of a survey of how much waste is available. According to the report, that untapped biomass is

Portable unit to travel widely in near future
capable of producing 3.1 million megawatt hours of electrical energy, enough to supply approximately 15 to 40 percent of Eastern Washington's current residential electrical consumption each year.

Creating energy from biomass could reduce greenhouse-gas emissions, benefit water quality, and solve some solid waste disposal problems, according to the report.

Shulin Chen, who heads WSU's research team, conducted the report's survey of the bio-energy potential of biomass in Eastern Washington. Ecology and the Inland Northwest Technology Education Center sponsored the report. According to Chen, the digester will be located at WSU's dairy center during trials.

"We will operate the system at WSU to further test and refine our ability to extract usable energy and products and to develop operations and business models," Chen said. "After that, we will work with Ecology to find the best places around the state to demonstrate the project."

Under terms of the contract, the portable unit must be completed by June 30.



Calendar of Events

June 1-2, 2005, Northwest Regional P2 Roundtable, in partnership with the Canadian Pollution Prevention Roundtable, will be held in Victoria, B.C. To learn more, call 206-352-2050, or visit the conference Web site at <http://www.pprc.org/networking/rrt.cfm>.

June 5, 2005, World Environment Day, will be celebrated in San Francisco, Calif. Sponsored by the United Nations. For more information, visit <http://www.wed2005.org/0.0.php>.

June 23-25, 2005, Association of Oregon Recyclers 27th Annual Conference, Redmond, Oregon. For more information, visit www.aorr.org.

July 20-23, 2005, Forging Solutions: Applying Ecological Economics to Urgent Problems, the Third Biennial Conference of the US Society for Ecological Economics (USSEE), will take place in Tacoma. To learn more, contact Isabel de la Torre at 253-539-5272 or isatorre@seanet.com, or visit <http://www.ussee.org/conference>.

July 29, 30 and 31, 2005, SolWest Renewable Energy Fair at the Grant County Fairgrounds in John Day, Oregon. For more information contact Jennifer Barker at 541-575-3633 or info@solwest.org, or visit <http://www.solwest.org/>.

November 1-4, 2005, Business for Social Responsibility 2005 Annual Conference, San Francisco, Calif. For more on this, e-mail conference@bsr.org, or visit <http://www.bsr.org/BSRConferences/2005/index.cfm>.

Green Building News from Spokane

Ecology's Eastern Regional Office staff help local innovators

GREEN BUILDING TRAINING CENTER OPENS

Community Colleges of Spokane (CCS) has opened a green building training module at its Apprentice Training Center in East Spokane. The 40x20-foot center meets the need to provide cover for hands-on training in the assembly of green building systems such as radiant floor heating, insulated concrete form walls, and vegetated roofs. The center was built under a grant to provide training to skilled building trades in the application of sustainable building strategies and technologies.

The center is designed so that groups of students construct a small segment of a wall or floor or ceiling, or install a particular green HVAC system in a limited area within the 40x20 structure. This construction is temporary and will be removed; the next class of apprentice students will replace it using the newest, leading-edge materials available at that time. Steve George, a volunteer with the Resource Efficient Building and Remodeling (REBAR) Council, supervised the purchase of green building elements. Northwest EcoBuilding Guild Inland Chapter President Tom Angell provided design and implementation oversight. Apprentice trainers from the carpenters and electrical workers unions as well as building instructors for CCS participated in getting the center built.

Ecology staffer Jim Wavada, REBAR Council executive director, worked with Steve George to persuade CCS to invest a portion of its grant for green building training in this semipermanent module. Other groups like the Northwest EcoBuilding Guild Inland Chapter are expected to rent the facility as well for demonstration workshops and public education events.



Electricians being trained about radiant floor heating systems at the new Green Building Training Center in Spokane.

REBAR BECOMING SPOKANE BRANCH, CASCADIA CHAPTER, U.S. GREEN BUILDING COUNCIL

The REBAR Council Executive Team signed an agreement in March to merge into the Cascadia Chapter, U.S. Green Building Council. The move will transform the REBAR Council, with its wide-ranging agenda of green building initiatives, into the Spokane Branch of the Cascadia Chapter, U.S. Green Building Council.

Spokane joins Vancouver, Olympia-Tacoma, Seattle, and Portland branches in a rapidly growing and developing Cascadia Chapter. Timing couldn't be better as the Spokane Branch is looking forward to locating a permanent office in a renovated downtown building whose architect is REBAR Council President Rod Butler. The building, the Saranac, is planned as a LEED Gold major renovation (see article below). This would make it the perfect home for the Spokane Branch. The next question is how to staff the Spokane Branch. Ecology staffer and green building specialist Allison Gray will be working with her predecessor, Jim Wavada, to figure out this evolution. Right now, Allison functions as REBAR Council's executive director part-time. Wavada is spending a portion of his work time to develop a plan to raise operating funds for the Spokane Branch to help support an eventual full-time paid staff position.



REBAR Council President Rod Butler, left of Zeck Butler Architects, Spokane, seals the deal with Cascadia Chapter Executive Director Glen Gilbert to merge the REBAR Council into the Cascadia Chapter as its newest branch office.

SPOKANE BUILDING DESIGNERS GOING FOR THE GOLD

Spokane Architect Rod Butler, President of the REBAR Council, is designing what everyone expects will be Eastern Washington's first LEED (Leadership for Energy and Environmental Design) Gold rated building. The Gold level is the second highest level achievable under the LEED standard. Ecology's HQ building just achieved a LEED Silver level rating (third highest level). Going for the Gold will present some challenges, since the project in question is a major renovation of early 20th century hotel in Spokane's urban center. Ecology staffer Jim Wavada organized the programming charette* for the project back in early March 2005.

*A charette is a rapid paced, interdisciplinary design workshop. It is taken from the French term for cart. Prior to 1900, French architecture students would often add last minute changes to their design assignments even as they were riding in carts to get to school.

Washington State Solid Waste *Information Clearinghouse*

Clearly the door to our information needs

Benefits of the clearinghouse:

- Helps tell the story of solid waste in Washington.
- Explains what CPG is doing and how it is valuable.
- Easy to find information.
- Provides inspiration and opportunity to showcase local programs.
- Facilitates learning from others' mistakes and successes.
- Archives and provides institutional memory for the state and local governments.
- Eliminates "re-creation of the wheel" and broadens resource pool.
- Managers can cut down on the learning curve for new staff.
- Small counties will feel less isolated and more connected.
- Get that "fresh from a conference feeling" anytime you need some inspiration or new approaches—all with a click of a mouse.

Have you ever felt like you are recreating "the wheel" of solid waste programs because you don't know what else is out there? Thanks to advances in information technology, a Web site tool is coming that will compile all of this information in one place with the click of a mouse!

Some of you may recall hearing a commitment from Ecology at the 2004 Solid Waste Summit to develop Washington State's Solid Waste **Information Clearinghouse**. Since the Summit, a planning committee made up of hardworking local government representatives and Ecology staff has made great progress. Once they have finished designing what information is included and how it is presented, they will turn the plan over to Ecology's information technology staff who will be building the site made up of interactive databases. The committee is on track with its work so far and is hopeful that by the next Solid Waste Summit in 2006 the Information Clearinghouse will be up and running.

Although the main audience for this site is local government, both solid and hazardous waste and health department staff, the site will be open to the public.

Web site pages for Washington's Information Clearinghouse:

- State profile: Find statewide summaries of county and city programs and planning status, facility information, waste generation, recycling and disposal figures, litter collection efforts, and Ecology-funded solid waste grants.
- County and City profiles: Find specific county and city information including demographics, contacts, lists of solid waste activities, planning status, what and where citizens can recycle, disposal data, household hazardous waste collection, and information about solid waste facilities. Local governments will have access to online reporting for their Coordinated Prevention Grant (CPG).
- Projects: A searchable database of local government and nonprofit project descriptions, approaches, resources developed, results, and whom to contact for more information.
- Outreach materials: Find materials prepared for public education and outreach such as brochures, posters, and print material.
- Resources: Find useful Web sites, books, organizations that your peers suggest.
- Tool box: Find resources to help local governments do their job, such as best management practices, studies, procedures, sample contracts, ordinances, and resolutions.
- Contact Search: Find solid waste professionals and their expertise.
- Calendar of Events: Find a calendar of conferences, meetings, training opportunities, etc.
- Classifieds: Post jobs, surplus materials, or a wanted ad here.



If you want to learn more about the Information Clearinghouse, provide feedback, or have questions, please contact Shelly McClure, project coordinator, at 360-407-6398 or smcc461@ecy.wa.gov.

Paint Product Stewardship Initiative Enters the Next Phase

Industry and government agree to reduce the volume and cost of managing leftover paint

As part of an agreement signed or endorsed by 45 parties (state and local governments, the paint industry association, a major retailer, the association of painting contractors, and others), representatives announced last month a plan to reduce the environmental impacts and cost of managing leftover latex and oil-based paint. Participants in the year-long dialogue agreed to implement 11 projects, at a cost of \$1.2 million, to be implemented over the next 18 months that will provide information necessary for the development of a nationally coordinated leftover paint management system. To date, nearly \$800,000 has been committed to initiate the projects and to continue the national dialogue for the next two years.

The Product Stewardship Institute (PSI), a national nonprofit organization, initiated the dialogue on leftover paint in 2003 in response to concerns expressed by state and local government officials about paint's high volume in the waste stream, potential to impact human health and the environment, substantial costs to manage, and potential for increased reduction, recovery, reuse, and recycling. PSI estimates the cost to manage leftover paint on a national level to be over \$275 million per year.

"This agreement represents a major milestone in an earnest quest to reduce paint waste, develop recycling markets, and find better ways to manage what is left over from a typical paint job," said Scott Cassel, PSI Executive Director. "All those with a stake in the outcome have agreed to take significant steps that will ease the financial burden to properly manage waste paint."

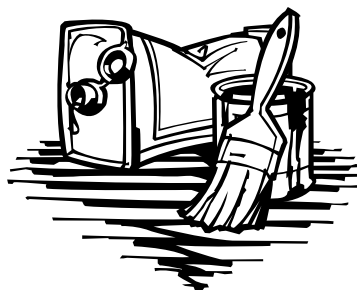
The National Paint and Coatings Association's (NPCA's) Board of Directors recently voted to continue its participation in the dialogue and support

the research agenda by funding four projects targeting consumer education, paint reuse, a life cycle cost/benefit assessment of managing leftover paint, and the promotion of health, safety, and environmental compliance for recycled and virgin paint products. NPCA represents over 90 percent of the paint and coatings manufacturers in the United States.

"The specific focus of these projects also reflects NPCA's long-standing commitment to consumer education and environmental responsibility on the issue," said Andrew Doyle, NPCA President. "NPCA and its member companies are committed to identifying the best possible solutions to the challenge of post-consumer paint."

State environmental agency officials were active participants in the dialogue. "Like many states across the country, Massachusetts has scaled back its recycling and special waste programs owing to budget cuts," said Arlene O'Donnell, Deputy Commissioner of the Massachusetts Department of Environmental Protection. "This national product stewardship initiative holds promise for states seeking economically viable alternatives to manage paint waste in partnership with industry."

Participants view this initiative as providing lessons on how to find solutions to other waste management problems for households and businesses, such as mercury switch thermostats, pharmaceuticals, beverage containers, and other consumer products.



Washington 2004 State Litter Study

Washington 2004 State Litter Study (Publication #05-07-029) is now available. It contains information on quantities and composition of litter collected along interstate, state, and county roads and highways. Statewide estimates, based on the samples collected at 115 sites, are presented. Please visit Ecology's publications Web site at <http://www.ecy.wa.gov/biblio/0507029.html> for a link to the online copy.

If you would like a printed copy of the litter study, please contact Michelle Payne, SWFAP, Dept. of Ecology, P.O. Box 47600, Olympia, WA 98504-7600, or by telephone at 360-407-6129.

Kitsap County Wins EPA Award for Waste Reduction

Local wisdom wins national praise

On October 25, 2004, the Environmental Protection Agency (EPA) presented Kitsap County with a Local Government Partner of the Year award for implementing a comprehensive waste reduction program that combines waste prevention with recycling and buying recycled. The County's success stems from its dedicated employees.

Each year, Waste Wi\$e Kitsap departmental trainings encourage employees to stop printing e-mails and other documents in an ongoing effort to reduce paper usage that also included testing the use of paperless timecards by several departments in 2003. To further reduce purchasing costs and promote waste reduction, employees use a paperless Wa\$te Exchange, an e-mail based program that lists used office supplies so that departments can obtain them instead of ordering new items. Kitsap County employees have saved \$10,000 on purchasing costs since the Wa\$te Exchange began nearly five years ago. Last year, the County saved \$148,000 in disposal costs by recycling paper products, food containers, scrap metal, batteries, concrete, asphalt, and tires.

Other 2003 activities included leasing or renting office equipment with the agreement that the vendor will take it back for proper disposal or refurbishment, purchasing an industrial-grade chipper for branches and trimmings (the mulch is then used on site in landscaping projects), and sending used electronic equipment to an environmentally responsible vendor for recycling or proper disposal.

"It's all part of an overall plan to create less waste," according to Lillian Bagus, Director of the EPA's Municipal and Solid Waste Division. Each year Kitsap County departments identify objectives that help them reach their goals of preventing waste, recycling more, and using more environmentally preferred products.

"These unique features make it a model for other local governments and large businesses," says Bagus. "Kitsap County has been very lucky to have the support and encouragement of their elected officials and department heads." Kitsap County was one of only 12 organizations to receive a Partner of the Year award at the ceremony.

Waste Wise is a free, voluntary partnership program launched in 1994. It provides guidance and recognition to more than 1,600 participating organizations that are working to find practical methods to reduce municipal solid waste and improve financial performance. As Waste Wise celebrated its 10th anniversary, EPA was pleased to recognize Kitsap County and other members that have made the program a success through their sustained commitment to waste reduction.

For more information about EPA's Waste Wise program and details about the 2004 Waste Wise Annual Meetings and Awards Ceremony, please visit the Waste Wise Web site at <http://www.epa.gov/wastewise> or contact the Waste Wise Helpline at 800-EPA-WISE (703-372-9473).

This is the fourth consecutive year that Kitsap County has won an award in this program.



"... a model for other local governments and large businesses. . ."

Snohomish County Seeks Information for More Cost-Effective Transfer Stations

As part of the 2005 budget process, the Snohomish County Council has directed the Solid Waste Division to prepare a Request for Information (RFI) to determine if there are more cost-effective methods to operate the County's three transfer stations. The purpose of this RFI is to solicit responses from private service providers on alternative methods of service delivery. It is the intent of the Council to review responses to the RFI and select a service delivery model that could be used to solicit bids from public and private providers to operate the transfer stations.

Contact Deanna Carveth at 425-388-6473, or deanna.carveth@co.snohomish.wa.us, to obtain the RFI document. Responses are due by May 31, 2005 at 3:00 p.m. at the Purchasing Division, 3000 Rockefeller Street, Everett, WA 98201. This RFI process is for the sole purpose of gathering information about operational options and will not be used to shortlist possible proposers for future related processes. Any subsequent activity related to this RFI will comply with all state and local laws and regulations governing the selection of contractors.

For more information about this process, contact Deanna Carveth at 425-388-6473.

Awards Recognize Environmental Stewardship

Schools also find help to fund new programs

Winners for the 2004-05 school year are:

Seed Award:

South Whidbey Public Schools, Island Co.,

\$100;

Havermale High,

Spokane Co., \$1,500;

Icicle River Middle,

Chelan Co., \$1,500;

Reardan-Edwall

Schools, Lincoln Co.,

\$2,000;

Zillah Intermediate,

Yakima Co., \$3,150;

Aki Kurose Middle,

King Co., \$1,900;

Poulsbo Elementary,

Kitsap Co., \$500;

Canyon Creek

Middle/Cape Horn

Skye Elementary,

Skamania Co., \$3,500;

Paul Rumburg

Elementary, Chelan

Co., \$700;

Ilalko Elementary, King

Co., \$250.

Sustainable School

Award:

Acme Elementary,
Whatcom Co., \$400;

Chautauqua

Elementary, King Co.,
\$750.00;

Harmony Elementary in
Whatcom Co., \$400;

Issaquah Valley
Elementary, King Co.,
\$650;

Kendall Elementary in
Whatcom Co., \$400;

Komachin Middle
School in Thurston Co.,
\$400;

Mt. Baker Junior &
Senior Highs in

Whatcom Co., \$400;

Olympia High, Thurston
Co., \$750;

Pasadena Park

Elementary, Spokane
Co., \$750

Ten schools will soon launch new programs to benefit the environment, thanks to awards from the state Department of Ecology.

The cash awards for new programs are part of Ecology's annual awards that recognize students' efforts at 19 schools overall.

Awards to the other schools will help maintain programs that are already in place.

The schools received the Terry Husseman Sustainable Schools Awards May 13 at the Capitol Rotunda in Olympia, in a ceremony that celebrated exceptional efforts to conserve resources, reduce waste, and preserve the environment. Award amounts ranged from \$100 to \$3,500.

The award program recognizes schools for managing and using materials to produce



Aki Kurose Middle School winners

less waste. Schools are judged on their programs' creative features, their purchasing practices, and their success at reducing waste and increasing recycling. The program rewards schools and teachers for innovative curriculums or for long-standing programs. Schools that submit outstanding plans for future programs receive seed money to assist with start-up costs.

"Handing out these awards is rewarding in itself," said Cullen Stephenson, manager of Ecology's solid waste program. "At Ecology we spend much of our time fixing things that have been polluted or poisoned. These programs eliminate potential problems so that they won't



Olympia High School winners

become problems in the first place. What could be more beneficial than that?"

Many winning schools make recycling efforts geared toward reducing garbage by 50 percent or more. More specific programs include Olympia High School, where a retention pond long used as a weedy trash pit was restored to a place of natural beauty, and Paul Rumburg Elementary School, where an award will help revive an ambitious recycling project that a fifth grade class launched three years ago but was unable to maintain on its own.

"Each year, we see dramatic progress," Stephenson said. "Not only are schools maintaining programs they've put in place, but more and more schools are signing up to launch new programs. At school after school, Washington is becoming a little cleaner every year."



Mt. Baker Junior & Senior High winners

To learn more, visit the School Awards site:
<http://www.ecy.wa.gov/programs/swfa/terryhusseman.html>.

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